

What is claimed is:

1. A method for analysing connection conditions between an integrated circuit package and a circuit board,
  - 5 - wherein said integrated circuit package is electrically coupled to said circuit board by coupling elements, and
  - wherein said integrated circuit package is mechanically connected with said circuit board by support elements,
  - 10 characterised in that
  - physical values are picked-off from said support elements, and
  - said physical values are evaluated to determine the condition of said connection between said integrated circuit package and said circuit board.
  - 15
2. The method of claim 1, wherein electrical values are picked-off from said support elements.
- 20 3. The method of claim 1, wherein electrical resistance and/or electrical current and/or voltage within said support elements is picked-off.
- 25 4. The method of claim 1, wherein mechanical values are picked-off from said support elements.
5. The method of claim 1, wherein mechanical values are picked-off from said support elements using a strain gauge.
- 30 6. The method of claim 1, wherein a condition of said electrical coupling of said integrated circuit package

with said circuit board is concluded from said  
determined condition of said connection.

7. The method of claim 1, wherein said connection  
5 condition is determined in intervals.
8. The method of claim 1, wherein said determined  
connection conditions are stored.
- 10 9. The method of claim 1, wherein in case a poor  
connection condition is determined, a error message is  
generated.
- 15 10. The method of claim 9, wherein said error message is  
presented on a user interface.
11. The method of claim 9, wherein said error message is  
stored.
- 20 12. The method of claim 9, wherein said error message is  
read out from a storage and used for maintenance.
- 25 13. A system for analysing connection conditions between  
an integrated circuit package and a circuit board,  
comprising:
  - coupling elements coupling said integrated circuit  
package electrically to said circuit board, and
  - support elements connecting said integrated circuit  
package mechanically with said circuit board,
  - 30 characterised by
    - measuring means arranged at said support elements to  
pick-off physical values from said support elements,  
and
    - evaluation means evaluating said physical values to  
35 determine the condition of said connection between

said integrated circuit package and said circuit board.

14. The system of claim 13, wherein said support elements  
5 are arranged between said circuit board and said integrated circuit package.
15. The system of claim 13, wherein said support elements are solder pads.  
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16. The system of claim 13, wherein said support elements are arranged adjacent to said coupling elements.
17. The system of claim 13, wherein said support elements  
15 are arranged semicircular along said coupling elements.
18. The system of claim 13, wherein said support elements are arranged along edges and/or at corners of said  
20 integrated circuit package.
19. The system of claim 13, wherein said integrated circuit package is a chip scale package or a chip size package.  
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20. The system of claim 13, wherein said measuring means provide picking-off electrical conditions of said support elements.
- 30 21. The system of claim 13, wherein said measuring means provide picking-off mechanical conditions of said support elements.
22. The system of claim 13, wherein storage means are  
35 comprised to store said picked-off physical values.

23. The system of claim 13, wherein said evaluation means  
compare said picked-off physical values with  
comparative values to determine the connection  
5 condition.
24. The system of claim 13, wherein said evaluation means  
provide an error message in case a poor connection  
condition is determined.  
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25. The system of claim 13, wherein said error message is  
stored within said storage means.
26. The system of claim 13, wherein an interface is  
15 provided to read out said stored physical values  
and/or stored error messages.
27. A consumer electronic device, in particular a mobile  
phone, comprising a system of claim 13.  
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28. A computer program operable to cause a processor to  
analyse connection conditions between an integrated  
circuit package and a circuit board according to a  
method of claim 1.  
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29. A computer program product comprising a computer  
program operable to cause a processor to analyse  
connection conditions between an integrated circuit  
package and a circuit board according to a method of  
30 claim 1.